SWC-95-05

Solid Waste Compost Facility
SDTF Permit
Triple T Pumping
SDTF-95-01
SR # 1347 in Watauga County

RECEIVED
OCT -4 2011
SOLID WASTE SECTION

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
DATE 7/30/2012 BY

Doc ID 16948

Mike Garlock-Kim Pierson
1372 NC Hwy 194 North
Boone, NC 28607
828-262-5745

The facility has been operated for 9 years as a demonstration site.

The nearest dwelling is approx. 1000 feet from the site.

The nearest well is approx. 600 feet from the site.

The nearest perennial stream is half a mile from the site.

A fire truck can get to all parts of the facility.

There is no discharge materials from this site.

The site is gated.

Personnel required: Mike Garlock works the plant. Kim Pierson is record keeping.

The odor will be controlled by maintaining the carbon/nitrogen ratio and or covering with sawdust and wood chips to filter odors.

Sampling shall be done every 6 months: Clean rubber gloves, clean utensils.
Pull State 2/3 and Private 1/3

Private lab for Pathogens
NCDA lab for nutrients, metals & salts.
Take at least 10 lb and sift through ¼ inch to screen
to determine the 0/0 of manmade inerts, by weight

.1405 Application Requirements

Small Type 3

The site is not open to the public. No thru traffic sign posted.

Aerial photo attached.

Zoning letter attached.

Site Plan attached.

Compost Process Flow Diagram attached.

Operation manual attached.

Ultimate use of the compost is for Agricultural use or Landscaping.

The means of measuring is a loader.

The anticipated process duration is a month.

The temperature monitoring is by 2 probes, it remains above 131 degrees for 15 days, approx. a 1 month process.

North Carolina Department of Environment and Natural Resources
Michael E. Scott
1646 Mail Service Center
Raleigh, NC 27699-1646

APPLICATION FOR APPROVAL OF COMPOST SITE
SMALL TYPE III

APPLICANTS: Mike Garlock and Kim Pierson
Triple T Pumping
1372NC Hwy 194 North
Boone, NC 28607
Home/Business Phone 828-262-5745

COMPOSTING SITE LOCATION: ~~795~~ 916 Troy Norris Rd
Boone, NC 28607
Kim Pierson- Property Owner

Space Limitations: To locate vary high carbon waste, with carbonitrate, greater than 100. The sawdust will be placed within 50 to 100 feet, due to space limitations.

DRIVING DIRECTIONS TO THE SITE:

Going to Boone on Highway 421 from Wilkesboro. Travel Hwy 421 to Jefferson Hwy(Hwy 194 N) go rt onto Jefferson Hwy (Hwy 194 N)there will be a Wilco Hess Gas station on the your rt at the turn. Travel Jefferson Hwy (Hwy 194 N) approx. 5.5 miles and turn rt on Troy Norris rd. When the pavement ends turn left onto the gravel road, passing 5 mobile homes on the rt and continue on till you reach the top. Then you will drive thru the gate, you have reached the site.

DRIVING MAP ENCLOSED.

Triple T Pumping is a dedicated 7 day a week, 24 hours a day Septic pumping service. Our treatment plant has put restrictions on the days and times that we may unload. We have had to postpone emergencies because we could not unload. The treatment plant charges .07 per gallon.

We will be dewatering as our solution to the times and the price of unloading at the treatment plant.

We felt composting septic and grease has only enhanced our operation, save money and not have the restrictions of the treatment plant to hinder our well established business in our community.

The dewatering is done with a box from NewTech, Inc.

PROPOSED WASTE TO BE COMPOSTED: Grease, Septic

COMPOSTING PROCESS: We are using 3 concrete bins, Static piles with periodic turning for aeration. Bins 2 and 3 are for composting, concrete floor. 1 is for storage and mixing, concrete floor with one lower corner going to a storage tank. The bin size is 12 X 16, Concrete wall.

LOCATION: The site meets all the required setbacks for a Small Type III
The active composting area is 55 feet from the property lines.

Compost Facility.
Space limitations: To locate very high carbon waste, with carbonitrate, greater than 100. The sawdust will be placed within 50 to 100 feet, due to space limitations.

BLENDING MATERIALS WILL INCLUDE:
Wood Waste
Saw Dust
Bark Mulch
Dead leaves

A Loader and Backhoe are used to mix our input materials. There are no seasonal variations for the types or amount of waste we receive. We have 1 Loader, 2 Backhoes and 3 Trackhoes, if one has a breakdown, we are covered with the other equipment.

Dewatereing approximately 8000 gallons a day(5 days a week) = 40, 000 gallons a week of septic/grease divided by 4000 pounds per week of compost =10 pounds per thousand = amount of compost(solids obtained from the dewatering process), approximately.

Based on the size of our site and the time it takes for blending and mixing we estimate the amount of compost material to be as follows: 2 tons per week X 50 weeks a year = approximately 100 tons per year.

All non conforming waste is disposed of by onsite dumpster.

MONITORING SYSTEM: Monitoring will be done by 2 temperature probes and read daily. We will be measuring temp at various locations and depths in each bin.

SDTF-95-01

36.28566° N latitude
-81.64509° W longitude

Source: 2010 NAIP Color Imagery, NCDA; point feature, NC DENR Division of Waste Management.

Map created by NC DENR Division of Waste Management, Compost and Land Application Branch for permitting purposes only.

crc, Feb. 2011

WATAUGA COUNTY

Department of Planning & Inspections

331 Queen Street Suite A • Boone, North Carolina 28607

Phone (828) 265-8043
TTY 1-800-735-2962
Voice 1-800-735-8262
or 711
FAX (828) 265-8080

September 29, 2011

Ms. Kim Pierson
1372 NC Highway 194 North
Boone, NC 28607

RE: 795 Troy Norris Road

Dear Kim,

This correspondence is intended to confirm that your property, located at 795 Troy Norris Road, is located within Watauga County's jurisdiction. At this time, the County does not have any zoning regulations applicable to your property.

If you require additional assistance, please call.

Regards,

John E. Spear, AICP
Department of Planning & Inspections

Compost Operation Manual

STDF 95-01

September 29, 2011

Triple T Pumping
Mike Garlock-Kim Pierson
1372 NC Hwy 194 North
Boone, NC 28607
828-262-5745

Start of Process:

Place 60% wood chips, 40% sawdust in base of Compost Bin #1.

Empty dewatered septage in Bin #1

Mix with backhoe.

Blend thoroughly.

Move to the Mixing/Blending area. Add wood chips, the amount will vary with the amount of grease.

When the compost is right(amount of wetness), move to Bin # 2. Add 2 Temperature probes.

Wait for temperature probes to reach at least 131 degrees, checking 4-7 days a week, recording the readings.

With the backhoe turn blend (scooping up and lifting high, as to turn completely over), then put in Bin #3.

When compost reaches at least 140 degrees, turn blend back in to Bin #2.

The compost will stay onsite for 15 days and maintains a temp of at least 131 degrees. Temperature readings are recorded on both probes. The compost will turned 5 times.

The blend, within 2 weeks after meeting the time/temp requirements, is moved off sit to be used as a compost product.

Will not operate when temps are below 10 degrees.

Wind in not an issue for equipment or operator.

Maintaining the site

The facility will be inspected at the end of each work day:

The cover will be put on the screening box daily.

Clean septage debris off the back and sidewalls of the dewatering box with the onsite pressure washer.

When dumping the dewatering box, make sure nothing has left containment, if droppage occurs, clean immediately with a pump truck, as well as any other spills.

Any potential odors will be secured by covering each pile with a 6 inch layer of finished compost or woodchips, to serve as a biofilter.

Triple T Pumping

Mike Garlock-Owner
1372 NC Hwy 194 North
Boone, North Carolina 28607
828-262-5745
FAX 828-262-3969

October 28, 2011

Good Day Michael Scott,

Enclosed is our Sampling results, SDTF-9501 Compost.

Thank you and feel free to contact me on my cell at any time, 828-963-3741.

Kim Pierson

NCDA&CS Agronomic Division **Phone: (919)733-2655** **Web site: www.ncagr.gov/agronomi/** **Report: W02332**

Waste Analysis Report

Grower: **Garlock, Mike**
1372 NC Hwy 194 N
Boone, NC 28607

Copies to: Howard, Lynn

Farm: **Watauga County**

Received: 10/07/2011 **Completed:** 10/12/2011 Links to Helpful Information

Sample Information	Laboratory Results (parts per million unless otherwise noted)													
Sample ID:	*N*	*P*	*K*	*Ca*	*Mg*	*S*	*Fe*	*Mn*	*Zn*	*Cu*	*B*	*Mo*	*Cl*	*C*
GM1	*Total* 23730	3757	1562	16782	3947	4174	6472	186	983	669	29.0			318877
Waste Code:	*IN-N*													
FCW	*-NH4*													
Description:	*-NO3*	*Na*	*Ni*	*Cd*	*Pb*	*Al*	*Se*	*Li*	*pH*	*SS*	*C:N*	*DM%*	*CCE%*	ALE(tons)
Composted Waste - Other	*OR-N*	206	19.1	2.81	25.4				6.52	29	13.44	44.62		
	Urea													

Recommendations:	Nutrients Available for First Crop													Other Elements						
													lbs/ton (wet basis)						*lbs/ton (wet basis)*	
Application Method	*N*	*P2O5*	*K2O*	*Ca*	*Mg*	*S*	*Fe*	*Mn*	*Zn*	*Cu*	*B*	*Mo*	*Cl*	*Na*	*Ni*	*Cd*	*Pb*	*Al*	*Se*	*Li*
Broadcast	8.5	4.6	1.3	9.0	2.1	2.2	3.5	0.10	0.53	0.36	0.02			0.18	0.02	T	0.02			

North Carolina Tobacco Trust Fund Commission

Reprogramming of the laboratory-information-management system that makes this report possible is being funded through a grant from the North Carolina Tobacco Trust Fund Commission.

Thank you for using agronomic services to manage nutrients and safeguard environmental quality.
- Steve Troxler, Commissioner of Agriculture

WATER QUALITY LAB & OPERATIONS, INC.
P.O. BOX 1167
BANNER ELK, NC 28604
(828) 898-6277

CLIENT: **TOWN OF BOONE WWTP**
ADDRESS: P.O. BOX 192
CITY: BOONE
STATE: NC ZIP 28607
ID#: **NC0020621**

RECEIVED DATE: 22-Sep-11
REPORTED DATE: 26-Sep-11

ANALYSIS	LSID #	ANALYSIS RESULTS	MQL's	UNITS	SAMPLE LOCATION	ANALYSIS COMPLETED	INT
TOTAL SOLIDS	1	91.3		%	SLUDGE		
FECAL COLIFORM		36		MPN/g	SLUDGE	23-Sep-11	PI
TOTAL SOLIDS	2	90.9		%	SLUDGE		
FECAL COLIFORM		19		MPN/g	SLUDGE	23-Sep-11	PI
TOTAL SOLIDS	3	91.3		%	SLUDGE		
FECAL COLIFORM		19		MPN/g	SLUDGE	23-Sep-11	PI
TOTAL SOLIDS	4	91.6		%	SLUDGE		
FECAL COLIFORM		36		MPN/g	SLUDGE	23-Sep-11	PI
TOTAL SOLIDS	5	90.9		%	SLUDGE		
FECAL COLIFORM		19		MPN/g	SLUDGE	23-Sep-11	PI
TOTAL SOLIDS	6	91.3		%	SLUDGE		
FECAL COLIFORM		19		MPN/g	SLUDGE	23-Sep-11	PI
TOTAL SOLIDS	7	91.2		%	SLUDGE		
FECAL COLIFORM		19		MPN/g	SLUDGE	23-Sep-11	PI

REPORTED BY: NC CERTIFIED LAB # 544

Paul Isenhour

PAUL ISENHOUR, SUPERVISOR

Compost Operation Manual

STDF 95-01

September 29, 2011

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1372 NC Hwy 194 North
Boone, NC 28607
828-262-5745

Start of Process:

Place 60% wood chips, 40% sawdust in base of Compost Bin #2.

Empty dewatered septage in Bin #2

Mix with backhoe.

Blend thoroughly.

Add wood chips, the amount will vary with the amount of grease.

When the compost is right(amount of wetness), move to Bin # 3. Add 2 Temperature probes.

Wait for temperature probes to reach at least 140 degrees, checking 4-7 days a week, recording the readings.

With the backhoe turn blend (scooping up and lifting high, as to turn completely over), then put in Bin #4.

When compost reaches at least 140 degrees, turn blend back in to Bin #2.

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